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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/674,498

10/01/2003

Takayuki Suga

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EXAMINER

SARPONG, AKWASI

ART UNIT

PAPER NUMBER

2609

MAIL DATE

DELIVERY MODE

08/22/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/674,498	Applicant(s) SUGA ET AL.	
	Examiner Akwasi M. Sarpong	Art Unit 2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to because the drawings do not show any labels. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2609

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mou (6216952) in view of Aikawa (5844730).

Claim 1, Mou discloses an image reading apparatus for reading an image of a document (Fig. 2 Element 2) comprising:

an image reading unit for reading the image of the document (Fig. 2 Element 2).

an illuminating unit for illuminating the document (Column 2 Lines 49-50 Fig. 2 Element 222).

an image forming unit for forming the image of the document onto the image reading apparatus (Fig. 2 Element 2) wherein the image forming unit is constructed with a plurality of image forming mirrors (Fig. 2 Elements 223,224, 225 and 226) formed with an off-axis reflecting surface with which a reference-axis ray has a different incident direction and reflected direction(Fig. 2 Elements 2214,2211 and 2213).

Mou does not disclose the off-axis reflecting surface having a curvature.

Aikawa discloses the off-axis reflecting surface having a curvature (Fig. 8A and 8b). Therefore it will be obvious to one ordinary skilled in the art at the time the invention was made to modify Mou's off-axis reflecting surface with Aikawa's reflected surface, which has a curvature to get a better resolution as a result of uniform illumination of the document. (Column 7 Lines 4-5).

Claim 2, Mou (Fig.2 Element 22) in view of Aikawa discloses an image reading apparatus, wherein the urging parts provided on the image forming mirrors have a flat part.

Claim 3, Mou (Fig. 2 Element 22) in view of Aikawa discloses an image reading apparatus wherein the off-axis reflecting surface and the urging parts of each image forming mirror are formed integrally.

Claim 4, Mou (Fig. 2) in view of Aikawa (Column 6 Lines1-4 Fig. 8A and 8B) discloses an image reading apparatus wherein the image forming mirrors comprise longitudinal position determining parts and lateral position determining parts for respectively and independently determining a longitudinal direction position and a lateral direction position. (R1 and R2 determines the longitudinal and lateral parts)

Claim 5, Mou in view of Aikawa (Column 6 Lines 6-8) discloses an image reading apparatus wherein either the longitudinal position determining parts or the lateral direction position determining parts provided on the image forming mirrors are formed on flat parts.

Claim 6, "wherein the longitudinal position determining parts and the lateral position determining parts provided on each image forming mirror determine the position of a reference axis of the off-axis reflecting surface of the image forming mirror," reads on Aikawa's Fig. 10 as you can tell the angle between X and Y.

Claim 7, Mou (Fig. 2) in view of Aikawa discloses wherein the off-axis reflecting surface, and the longitudinal position determining parts and the lateral position determining parts are formed integrally for each of the image forming mirrors.

Claim 8, Mou in view of Aikawa discloses wherein the housing comprises respective engaging parts with which the longitudinal position determining parts and the lateral position determining parts of the image forming mirrors engage, and when the engaging parts, and the longitudinal position determining parts and the lateral position determining parts engage with each other, each portion of the engaging parts can slide in a direction orthogonal to a position determining direction, thereby allowing thermal expansion of the image forming mirrors. (Column 3 Lines 25-32 Fig. 5 Element 229).

Conclusion

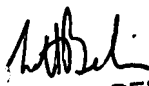
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Akwasi M. Sarpong whose telephone number is 571-270 3438. The examiner can normally be reached on Monday-Friday 8:00am-5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hai Tran can be reached on 571-272-7305. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AMS:

AUGUST 09 2007


SCOTT E. BELIVEAU
PRIMARY PATENT EXAMINER